

ROLE OF PURINERGIC P2X4 RECEPTORS IN REGULATING STRIATAL DOPAMINE
HOMEOSTASIS AND DEPENDENT BEHAVIORS

Sheraz Khoja^a; Vivek Shah^b; Damaris Garcia^b; Liana Asatryan^c; Michael W. Jakowec^b;
Daryl L. Davies^c

^aDepartment of Pharmacology and Pharmaceutical Sciences, School of Pharmacy,
University of Southern California, Los Angeles, CA 90089

^bDepartment of Neurology, Keck School of Medicine, University of Southern California,
Los Angeles, CA 90033

^cTitus Family Department of Clinical Pharmacy, School of Pharmacy, University of
Southern California, Los Angeles, CA 90089

Running title: P2X4 receptors modulate dopamine function

Correspondence Address:

Dr. Daryl L. Davies
Titus Family Department of Clinical Pharmacy
1985 Zonal Avenue
Los Angeles, CA 90033
Phone: (323)-442-1427
Fax: (323)-442-1704
Email: ddavies@usc.edu

SUPPORTING INFORMATION:

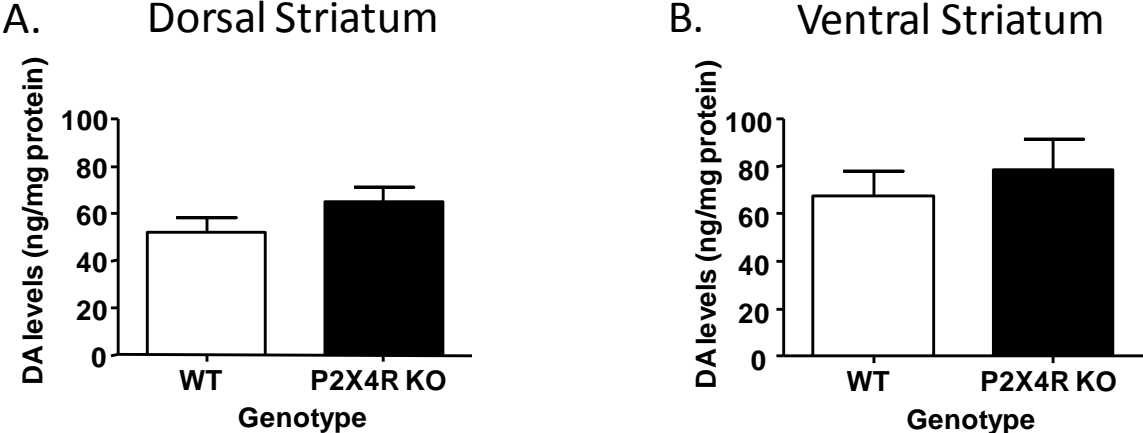


Figure S1: No changes in DA levels in the dorsal (A) and ventral striatum (B) of P2X4R KO mice as compared to WT controls. Values represent mean \pm SEM for 13 WT, 12 P2X4R KO mice in dorsal striatum and 12 WT, 11 P2X4R KO mice in ventral striatum.

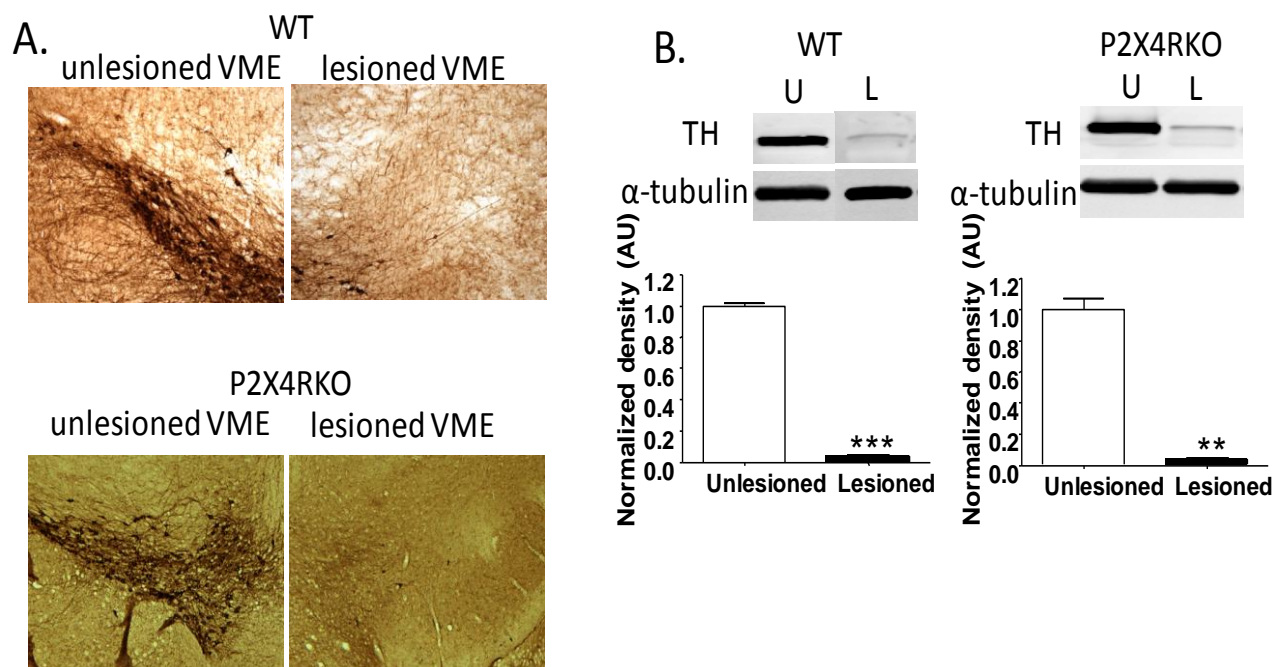


Figure S2: Stereotaxic injection of 6-OHDA (4mg/ml) induced destruction of DA neurons in the ventral mesencephalon (A) and TH density in the striatum (B) of both WT and P2X4R KO to similar extent. U= unlesioned, L=lesioned. Values represent mean \pm SEM for 4 mice per genotype. ** $P < 0.01$, *** $P < 0.001$ versus unlesioned side of striatum, Student t-test

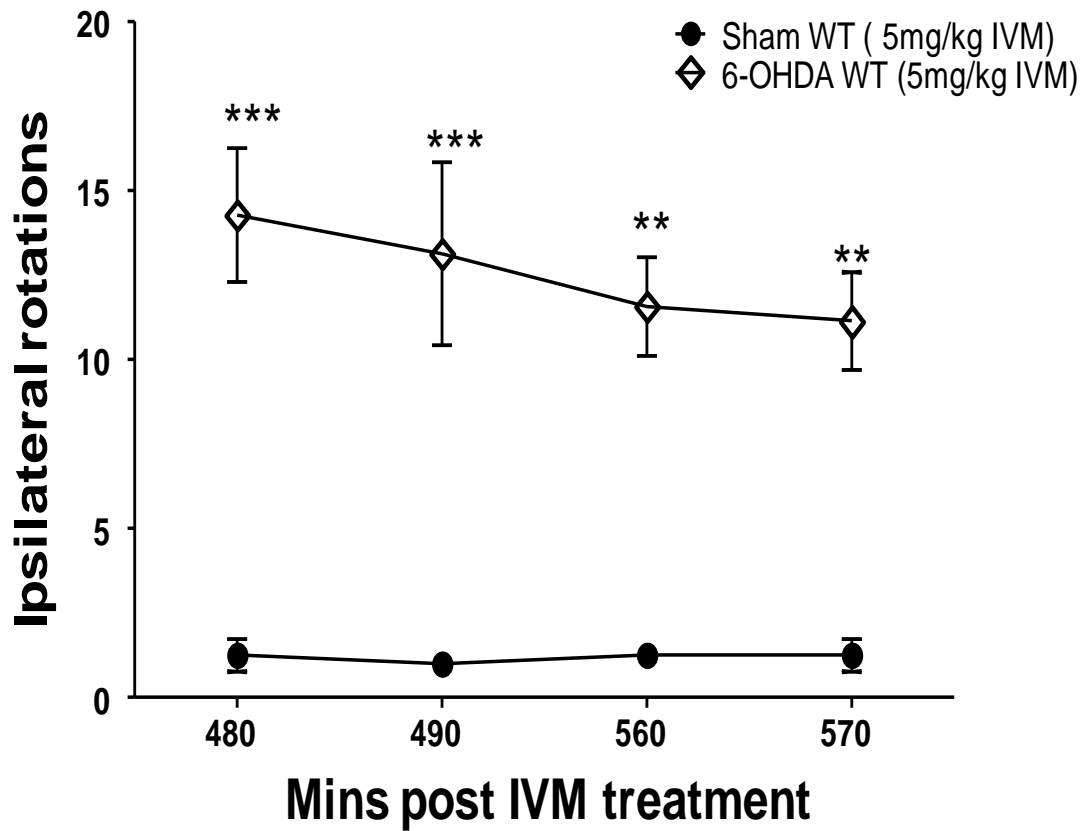


Figure S3: IVM (5mg/kg) induced ipsilateral rotations in 6-OHDA WT mice that were statistically significant from sham WT controls. Values on the y-axis represent mean of number of ipsilateral rotations for a period of 2 hrs post IVM treatment \pm SEM for 7 6-OHDA WT and 4 sham controls. ** $P < 0.01$, *** $P < 0.001$ versus sham WT controls, Bonferroni post hoc test.